



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/875,529	06/06/2001	Gerald E. Janusz	RF000/000RF-U	6949
22428	7590	06/15/2005	EXAMINER	
FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			CHO, UN C	
			ART UNIT	PAPER NUMBER
			2687	

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/875,529

Applicant(s)

JANUSZ ET AL.

Examiner

Un C Cho

Art Unit

2687

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-43 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 06 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 3/21/2005 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 16, 30, 34, 36 and 37 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1 on page 2, lines 14 and 15 states "... without any prior knowledge of the area control module ...". The applicant in the argument discussed regarding page 26 of the applicant's specification regarding this feature. Examiner did not find any disclosure in the

specification on page 26 regarding "... without any prior knowledge of the area control module ...".

Claim Rejections - 35 USC § 103

4. Claims 1 – 6, 8 – 12, 16 – 21, 23 – 27, 30 – 35 and 38 – 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petite et al. (US 6,437,692 B1) in view of Chuprun et al. (US 6,115,580) and in view of Larsson et al. (US 6,535,498 B1).

Regarding claim 1, Petite discloses a method for communicating information related to a plurality of working components of a system monitored by a utility arranged in a local cluster, and from each such working component (integrated transceivers, Fig. 2, 212, 214, 216, 222 and 224) to a central location (server, workstation or laptop computer, Fig. 2, 260, 250 and 240) (Petite, Col. 7, lines 17 – 57), comprising the steps of attaching and operably connecting a low power transceiver module (Petite, Col. 5, line 65 through Col. 6, line 30) to each working component of the system monitored by a utility (each integrated transceivers are composed of a sensor/actuator (Fig. 3C, 310 and 380) and a radio transceiver (Fig. 3C, 350)), said transceiver module including at least a microcontroller (data controller, Fig. 3C, 324) and a radio transceiver (RF transceiver, Fig. 3C, 350) (Petite, Col. 9, line 52 through Col. 10, line 30); and positioning an area control module (local gateway, Fig. 2, 210 and 220, Fig. 4) in the vicinity of the plurality of working components in the local cluster, said area control module including at least a microprocessor (CPU, Fig. 4, 422) and a radio

transceiver (transceiver, Fig. 4, 420), and said area control module being in communication with said central location (local gateway being in communication with server via wireless area network (WAN)) (Petite, Col. 11, line 1 through Col. 12, line 3); and wherein, upon occurrence of a predetermined event, the microcontroller associated with one of said transceiver modules initiating transmission of a message through the radio transceiver, said message containing the identification of and the status of the working component (transmitting data obtained from sensors via the transceiver whereas the message contains identification of working component); the message being received by the radio transceivers associated with one or more neighboring transceiver modules (message is received through radio transceivers) (Petite, Col. 9, line 52 through Col. 10, line 17).

However, Petite as applied above does not specifically disclose wherein each working component in the local cluster itself initiates determination of an initial best path to the area control module without any prior knowledge of the area control module; and each of said receiving transceiver modules making a decision as to whether to re-transmit said message based on a determination of whether the transceiver module is on the best path between the transceiver module from which the message originated and the area control module; re-transmission of the message continuing along said best path until the message is received at the area control module. In an analogous art, Chuprun discloses wherein each working component in the local cluster itself initiates determination

of an initial best path to the area control module without any prior knowledge of the area control module (Chuprun, Col. 5, line 37 through Col. 6, line 21).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Chuprun to the system of Petite in order to provide a method and apparatus that is capable of enhancing connectivity in a wireless communications network by intelligently selecting the wireless links that are used to establish connections between nodes in the network.

However, Petite in view of Chuprun as applied above does not specifically disclose each of said receiving transceiver modules making a decision as to whether to re-transmit said message based on a determination of whether the transceiver module is on the best path between the transceiver module from which the message originated and the area control module; re-transmission of the message continuing along said best path until the message is received at the area control module. In an analogous art, Larsson discloses each of said receiving transceiver modules making a decision as to whether to re-transmit said message based on a determination of whether the transceiver module is on the best path between the transceiver module from which the message originated and the area control module; re-transmission of the message continuing along said best path until the message is received at the area control module (Larsson, Col. 2, lines 46 - 55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the

technique of Larsson to the modified system of Petite and Chuprun in order to allow reactive ad-hoc routing protocols to determine whether more optimal routes exist between the source node and the destination node.

Regarding claim 2, Petite in view of Chuprun and further in view of Larsson as applied to claim 1 above discloses in which a control message containing instructions can be initiated from the central location (server, workstation or laptop), communicated to the area control module (local gateway) for subsequent transmission to one or more intended transceiver modules, said area control module transmitting the message to one or more receiving transceiver modules within its transmission range (Petite, Col. 13, lines 1 – 30), each of the receiving transceiver modules making a decision as to whether to re-transmit said message based on a determination of whether the receiving transceiver module is on a designated path between the area control module and the one or more intended transceiver modules (Larsson, Col. 2, lines 46 - 55).

Regarding claim 3, Petite in view of Chuprun and further in view of Larsson as applied to claim 2 above discloses in which the one or more intended transceiver modules, upon receipt of the control message, execute the instructions contained therein (actuator executes instructions sent by the server, Petite, Col. 13, lines 1 – 30).

Regarding claim 4, Petite in view of Chuprun and further in view of Larsson as applied to claim 3 above discloses in which each transceiver module further includes at least one actuation component for manipulating the operation

of the working component based on instructions contained in the control message (Petite, Col. 13, lines 1 – 30).

Regarding claim 5, Petite in view of Chuprun and further in view of Larsson as applied to claim 1 above discloses in which each transceiver module further includes one or more sensors (Fig. 8, 814) for sensing various operational parameters representative of the status of the working component to which the transceiver module is secured, each such sensor communicating the status information to the microcontroller of the transceiver module (data controller, Fig. 3C, 324) for interpretation by a diagnostics processor integral to the microcontroller and then subsequent transmission through the radio transceiver (Petite, Col. 13, lines 1 – 30).

Regarding claim 6, Petite in view of Chuprun and further in view of Larsson as applied to claim 5 above discloses in which each transceiver module further includes at least one actuation component for manipulating the operation of the working component in response to the status information communicated to the microcontroller from the one or more sensors (Petite, Col. 13, lines 1 – 30).

Regarding claim 8, Petite in view of Chuprun and further in view of Larsson as applied to claim 5 above discloses in which said predetermined event is the receipt of certain status information by the microcontroller (data controller, Fig. 3C, 324 detects an event and reports its status, Petite, Col. 12, lines 24 – 40).

Regarding claim 9, Petite in view of Chuprun and further in view of Larsson as applied to claim 2 above discloses in which said predetermined event is the receipt of a control message (receipt of a control signal, Petite, Col. 13, lines 1 – 30).

Regarding claim 10, Petite in view of Chuprun and further in view of Larsson as applied to claim 1 above discloses in which the microcontroller of each said transceiver module executes embedded code stored in an associated memory for coordinating function and control of the transceiver module (a control signal is sent to the integrated transceivers and executes according to the control signal, Petite, Col. 13, lines 1 – 30).

Regarding claim 11, Petite in view of Chuprun and further in view of Larsson as applied to claim 10 above discloses in which a unique code (transceiver ID, Fig. 3C) is stored in the associated memory for identifying the particular transceiver module (Petite, Col. 9, line 52 through Col. 10, line 30).

Regarding claim 12, Petite in view of Chuprun and further in view of Larsson as applied to claim 10 above discloses in which information and data associated with the maintenance and operation of the working component is also stored in the associated memory (data controller having a look up table to access unique function codes that are communicated in data packet, Petite, Col. 10, lines 12 – 30).

Regarding claim 16, Petite in view of Chuprun and further in view of Larsson as applied to claim 1 above discloses a system for communicating

information related to a plurality of working components of a system monitored by a utility arranged in a local cluster, comprising a plurality of low power transceiver modules (Petite, Col. 5, line 65 through Col. 6, line 30), each such transceiver module being secured and operably connected to each working component of the system monitored by a utility, each such transceiver module including at least a microcontroller and a radio transceiver (Petite, Col. 9, line 52 through Col. 10, line 30); and at least one area control module positioned in the vicinity of the plurality of transceiver modules in the local cluster, said area control module including at least a microprocessor and a radio transceiver (Petite, Col. 11, line 1 through Col. 12, line 3), wherein each working component in the local cluster itself initiates determination of an initial best path to the area control module without any prior knowledge of the area control module and itself dynamically initiates update of the best path to the area control module (Chuprun, Col. 5, line 37 through Col. 6, line 21); a network support server (server, workstation or laptop) in communication with said area control module; and one or more display and control units (server, workstation or laptop inherently having one or more display and control units, Fig. 2, 260, 250 and 240) in communication with said network support server; wherein upon occurrence of a predetermined event, the microcontroller associated with one of said transceiver modules initiating transmission of a message through the radio transceiver, said message containing the identification of and the status of the working component; the message being received by the radio transceivers associated with one or more

neighboring transceiver modules (Petite, Col. 9, line 52 through Col. 10, line 17); each of said receiving transceiver modules making a decision as to whether to re-transmit said message based on a determination of whether the transceiver module is on the best path between the transceiver module from which the message originated and the area control module; re-transmission of the message continuing along said designated path until the message is received at the area control module (Larsson, Col. 2, lines 46 - 55); said area control module communicating said message to the network support server (local gateway receives the message from integrated transceivers and communicates the message to the server through WAN) (Petite, Col. 11, line 1 through Col. 12, line 3); and said network support server analyzing said message, and communicating the status information contained therein to the one or more display and control units for review by an end user (Petite, Col. 13, lines 1 – 30).

Regarding claim 17, Petite in view of Chuprun and further in view of Larsson as applied to claim 16 above discloses in which the end user can initiate a control message containing instructions through the display and control units (server, workstation or laptop), said message being communicated to the area control module through the network support server for subsequent transmission to one or more intended transceiver modules (Petite, Col. 13, lines 1 – 30), said area control module transmitting the message to one or more receiving transceiver modules within its transmission range, each of the receiving transceiver modules making a decision as to whether to re-transmit said

message based on a determination of whether the receiving transceiver module is on the best path between the area control module and the one or more intended transceiver modules (Larsson, Col. 2, lines 46 - 55).

Regarding claim 18, the claim is interpreted and rejected for the same reason as set forth in claim 3.

Regarding claim 19, the claim is interpreted and rejected for the same reason as set forth in claim 4.

Regarding claim 20, the claim is interpreted and rejected for the same reason as set forth in claim 5.

Regarding claim 21, the claim is interpreted and rejected for the same reason as set forth in claim 6.

Regarding claim 23, Petite in view of Chuprun and further in view of Larsson as applied to claim 20 above discloses in which said predetermined event is the receipt of certain status information by the microcontroller (receive/transmit control signal, Petite, Col. 13, lines 1 – 30).

Regarding claim 24, the claim is interpreted and rejected for the same reason as set forth in claim 9.

Regarding claim 25, the claim is interpreted and rejected for the same reason as set forth in claim 10.

Regarding claim 26, the claim is interpreted and rejected for the same reason as set forth in claim 11.

Regarding claim 27, the claim is interpreted and rejected for the same reason as set forth in claim 12.

Regarding claim 30, the claim is interpreted and rejected for the same reason as set forth in claim 16.

Regarding claim 31, the claim is interpreted and rejected for the same reason as set forth in claim 17.

Regarding claim 32, Petite in view of Chuprun and further in view of Larsson as applied to claim 31 above discloses in which the control and display units (server, workstation or laptop) are in communication with the network support server (server, workstation or laptop) through an information network (WAN) (Petite, Col. 5, line 65 through Col. 6, line 30).

Regarding claim 33, Petite in view of Chuprun and further in view of Larsson as applied to claim 32 above discloses in which the information network is the Internet (WAN (Internet/Intranet), Fig. 2, 230, Petite, Col. 7, lines 17 – 57).

Regarding claim 34, the claim is interpreted and rejected for the same reason as set forth in claim 1.

Regarding claim 35, the claim is interpreted and rejected for the same reason as set forth in claim 2.

Regarding claim 38, Petite in view of Chuprun and further in view of Larsson as applied to claim 1 above discloses wherein the system monitored by the utility comprises a street lighting unit, a water, electric, or a gas meter, or a

Art Unit: 2687

water pump (utility meter, water, diagnostic, etc., Petite, Col. 12, line 24 through Col. 14, line 50).

Regarding claim 39, the claim is interpreted and rejected for the same reason as set forth in claim 38.

Regarding claim 40, the claim is interpreted and rejected for the same reason as set forth in claim 38.

Regarding claim 41, the claim is interpreted and rejected for the same reason as set forth in claim 38.

5. Claims 13, 14, 28, 29, 36, 37, 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petite in view of Chuprun and in view of Larsson as applied to claim 1 above, and further in view of Gatherer et al. (US 2002/0065058).

Regarding claim 13, Petite in view of Chuprun and in view of Larsson as applied to claim 1 above does not specifically disclose in which the radio transceivers associated with each transceiver module operate in an unlicensed band. In an analogous art, Gatherer discloses in which the radio transceivers associated with each transceiver module operate in an unlicensed band (Bluetooth devices work in the 2.4Ghz frequency band, Gatherer, Page 3, Paragraph 0029, lines 1 – 27). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Gatherer to the modified system of Petite, Chuprun and Larsson in order to provide improved utilization of the aggregate communication capacity

provided by a concentrated plurality of local wireless communication networks and decreasing power requirements for the devices in the ad hoc networks.

Regarding claim 14, Petite in view of Chuprun, in view of Larsson and further in view of Gatherer as applied above discloses in which the radio transceiver associated with each transceiver module operate at power levels no more than 500mW (Bluetooth transceivers operate at a maximum power of 100mW, Gatherer, Page 3, Paragraph 0031, lines 7 – 10).

Regarding claim 28, the claim is interpreted and rejected for the same reason as set forth in claim 13.

Regarding claim 29, the claim is interpreted and rejected for the same reason as set forth in claim 14.

Regarding claim 36, Petite in view of Chuprun, in view of Larsson and further in view of Gatherer as applied above discloses a method for communicating information related to a plurality of working components of a system monitored by a utility arranged in a local cluster from each such working component to a central location, comprising the steps of attaching and operably connecting a transceiver module to each working component of the system monitored by a utility (Petite, Col. 5, line 65 through Col. 6, line 30), said transceiver module including at least a microcontroller and a radio transceiver operating at a power level of no more than 500mW (Bluetooth transceivers operate at a maximum power of 100mW, Gatherer, Page 3, Paragraph 0031, lines 7 – 10); and positioning an area control module in the vicinity of the plurality

of working components in the local cluster, said area control module including at least a microprocessor and a radio transceiver, and said area control module being in communication with said central location (Petite, Col. 11, line 1 through Col. 12, line 3), wherein each working component in the local cluster itself initiates determination an initial best path to the area control module without any prior knowledge of the area control module (Chuprun, Col. 5, line 37 through Col. 6, line 21); wherein, upon occurrence of a predetermined event, the microcontroller associated with one of said transceiver modules initiating transmission of a message through the radio transceiver, said message containing the identification of and the status of the working component; the message being received by the radio transceivers associated with one or more neighboring transceiver modules (Petite, Col. 9, line 52 through Col. 10, line 17); each of said receiving transceiver modules making a decision as to whether to re-transmit said message based on a determination of whether the transceiver module is on the best path between the transceiver module from which the message originated and the area control module; re-transmission of the message continuing along said best path until the message is received at the area control module; and said area control module communicating said message to the central location (Larsson, Col. 2, lines 46 - 55).

Regarding claim 37, Petite in view of Chuprun, in view of Larsson and further in view of Gatherer as applied above discloses a method for communicating information related to a plurality of working components of a

system monitored by a utility arranged in a local cluster, from each such working component to a central location, comprising the steps of attaching and operably connecting a low power transceiver module to each working component of the system monitored by the utility (Petite, Col. 5, line 65 through Col. 6, line 30), said transceiver module including at least a microcontroller and a radio transceiver operating in the 902MHz to 928MHz frequency band or the 2.4GHz to 2.48GHz frequency band (Bluetooth devices work in the 2.4Ghz frequency band, Gatherer, Page 3, Paragraph 0029, lines 1 – 27); and positioning an area control module in the vicinity of the plurality of working components in the local cluster, said area control module including at least a microprocessor and a radio transceiver, and said area control module being in communication with said central location (Petite, Col. 11, line 1 through Col. 12, line 3), wherein each working component in the local cluster itself initiates determination of an initial best path to the area control module without any prior knowledge of the area control module (Chuprun, Col. 5, line 37 through Col. 6, line 21); wherein, upon occurrence of a predetermined event, the microcontroller associated with one of said transceiver modules initiating transmission of a message through the radio transceiver, said message containing the identification of and the status of the working component; the message being received by the radio transceivers associated with one or more neighboring transceiver modules (Petite, Col. 9, line 52 through Col. 10, line 17); each of said receiving transceiver modules making a decision as to whether to re-transmit said message based on a determination of

whether the transceiver module is on the best path between the transceiver module from which the message originated and the area control module; re-transmission of the message continuing along said best path until the message is received at the area control module; and said area control module communicating said message to the central location (Larsson, Col. 2, lines 46 - 55).

Regarding claim 42, the claim is interpreted and rejected for the same reason as set forth in claim 38.

Regarding claim 43, the claim is interpreted and rejected for the same reason as set forth in claim 38.

6. Claims 7, 15 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petite in view of Chuprun, in view of Larsson as applied to claim 1 above, and further in view of Sugaya et al. (US 6,490,459).

Regarding claim 7, Petite in view of Chuprun, in view of Larsson as applied to claim 1 above does not specifically disclose that the predetermined event is a prompt based on a predetermined schedule. In an analogous art, Sugaya discloses that the predetermined event is a prompt based on a predetermined schedule (Sugaya, Col. 7, lines 1 – 5). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Sugaya to the modified system of Petite, Chuprun, and Larsson in order to well control a station incapable of directly making

communication with a control station in the case where an attempt is made to control communication in a network system by means of the control station.

Regarding claim 15, Petite in view of Chuprun and in view of Larsson and further in view of Sugaya as applied above discloses in which the microcontroller of the transceiver module has an integral clock function (Sugaya, Col. 8, lines 36 – 39).

Regarding claim 22, the claim is interpreted and rejected for the same reason as set forth in claim 7.

Response to Arguments

7. Applicant's arguments with respect to claims 1 – 43 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Un C Cho whose telephone number is (571) 272-7919. The examiner can normally be reached on M ~ F 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2687

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Un C Cho
Examiner
Art Unit 2687

6/9/2005 UC


6/13/05
LESTER G. KINCAID
PRIMARY EXAMINER